



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/775,694

02/11/2004

Dan Matlock

MATLOCK-001

9177

34111

7590

06/25/2008

Maxey Law Offices, PLLC
13630 58TH ST. NORTH
SUITE 101
CLEARWATER, FL 33760

EXAMINER

AMADIZ, RODNEY

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

06/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/775,694	Applicant(s) MATLOCK ET AL.	
	Examiner RODNEY AMADIZ	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 40-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 40,41 and 48 is/are rejected.
- 7) ☒ Claim(s) 42-47 and 49-51 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 40 is rejected under 35 U.S.C. 102(b) as being anticipated by Hoch (U.S. Patent 6,492,963—hereinafter “Hoch”).

As to **Claim 40**, Hoch teaches a light emitting display apparatus for displaying a stationary or animated image on a rotating object, such as, for example, a wheel of a vehicle (*Fig. 1 and Col. 5, lines 10-15*), the light emitting display apparatus comprising: a support attachable to the rotating object so as to having the same center of rotation as the rotating object (*Fig. 1, 101 and Fig. 8, 800*); a plurality of light emitting elements on said support and arranged in one or more generally parallel columns (*Fig. 1, 101 and Col. 3, lines 22-26*); one or more image maps of an image to be displayed (*Col. 3, lines 64-67*), each image map including an array of plurality of columns (*inherent in order to produce an image such as a message*); a means for sensing the rotational position of said support about the center of rotation and generating a signal (*Col. 2, line 59—Col. 3, line 21*); a microcontroller attached to each of said plurality of light emitting elements (*Fig. 4A, 202*), said microcontroller receives said signal and operates to select an image map and a column from said selected image map in accordance with said signal and configured to illuminate one or more of said light emitting elements in accordance with said selected image map, said selected column and said signal (*See Figs. 1, 3A-*

3F and 4A and Col. 2, lines 43-44, Col. 3, lines 15-21 and 64-67 and Col. 4. lines 20-38 and note that when producing an image, pattern or message, the microprocessor takes into consideration the speed of the wheel in order to activate the proper light(s) in the respective column(s)), thereby displaying said image as said support is rotated about the center of rotation so as to be viewed by humans (See Figs. 3A-3F); and a power source connected to and providing electrical power to said microcontroller (Fig. 4A, 201).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 41 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoch in view of Kowalewski (USPGPUB 2002/0135541—hereinafter “Kowalewski”).

As to **Claim 41**, Hoch teaches said micro controller configured to illuminate one or more of said light emitting elements in accordance with said selected image map, said selected column and said signal (*See Figs. 1, 3A-3F and 4A and Col. 2, lines 43-44, Col. 3, lines 15-21 and 64-67 and Col. 4. lines 20-38 and note that when producing an image, pattern or message, the microprocessor takes into consideration the speed of the wheel in order to activate the proper light(s) in the respective column(s))*. Hoch, however, fails to teach that said microcontroller further operates to define a delay period and is further configured to illuminate one or more of said light emitting elements in accordance with said delay period. Examiner cites Kowalewski to

teach a microcontroller that operates to define a delay period and illuminates one or more light emitting elements in accordance with said delay period (*Fig. 12 and Pg. 1, ¶ 7, Pg. 2, ¶ 14, Pg. 4, ¶'s 45 and 46, Pg. 7, ¶'s 71 and 76 and Pg. 8, ¶ 90*). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate a delay period configured to illuminate one or more light emitting elements as taught by Kowalewski in the light emitting display apparatus taught by Hoch in order to adjust the center of the apparent display when viewed from the front of the display (*Kowalewski—Pg. 2, ¶ 14 and Pg. 4, ¶ 45*).

As to **Claim 48**, Hoch teaches a light emitting display apparatus, comprising: a wheel (Fig. 1, 110) attached to a vehicle (*Fig. 1 and Col. 5, lines 10-15*); a support attached (101, 102 and 103) to said wheel so as to having the same center of rotation as the rotating object (*Fig. 1, 101 and Fig. 8, 800*); a plurality of light emitting elements on said support and arranged in one or more generally parallel columns (*Fig. 1, 101 and Col. 3, lines 22-26*); one or more image maps of an image to be displayed, each image map including an array of plurality of columns (*Col. 3, lines 64-67*); a means for sensing the rotational position of said support about the center of rotation and generating a signal (*Col. 2, line 59—Col. 3, line 21*); a microcontroller attached to each of said plurality of light emitting elements (*Fig. 4A, 202*), said microcontroller receiving said signal and operating to select an image map and a column from said selected image map in accordance with said signal, , said microcontroller configured to illuminate one or more of said light emitting elements in accordance with said selected image map, said selected column and said signal (*See Figs. 1, 3A-3F and 4A and Col. 2, lines 43-44, Col. 3, lines 15-21 and 64-67 and Col. 4. lines 20-38 and note that when producing an image, pattern or message, the microprocessor takes into consideration the speed of the wheel in order to activate the proper*

light(s) in the respective column(s)), thereby displaying said image as said support is rotated about the center of rotation so as to be viewed by humans (*See Figs. 3A-3F*); and a power source connected to and providing electrical power to said microcontroller *Fig. 4A, 201*). Hoch, however, fails to teach that said microcontroller further operates to define a delay period and is further configured to illuminate one or more of said light emitting elements in accordance with said delay period. Examiner cites Kowalewski to teach a microcontroller that operates to define a delay period and illuminates one or more light emitting elements in accordance with said delay period (*Fig. 12 and Pg. 1, ¶ 7, Pg. 2, ¶ 14, Pg. 4, ¶'s 45 and 46, Pg. 7, ¶'s 71 and 76 and Pg. 8, ¶ 90*). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate a delay period configured to illuminate one or more light emitting elements as taught by Kowalewski in the light emitting display apparatus taught by Hoch in order to adjust the center of the apparent display when viewed from the front of the display (*Kowalewski—Pg. 2, ¶ 14 and Pg. 4, ¶ 45*).

Allowable Subject Matter

5. Claims 42-47 and 49-51 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: As to Claims 42, 45 and 49 the prior art fails to teach or suggest, either alone or in combination that “said microcontroller determines the rotational frequency of said support from said signal and from said rotational frequency determines the linear velocity of the object to which said support

Art Unit: 2629

is attached, and wherein said image is of a speedometer which dynamically displays said linear velocity.”.

As to Claims 43, 46 and 50 the prior art fails to teach or suggest, either alone or in combination that “said microcontroller determines the rotational acceleration of said support from said signal and from said rotational acceleration determines the linear acceleration of the object to which said support is attached, and wherein said image is of an accelerometer which dynamically displays said linear acceleration.”..

As to Claims 44, 47 and 51 the prior art fails to teach or suggest, either alone or in combination that “said microcontroller is encoded with the radius of the wheel and the vehicle mass to which the vehicle wheel is mounted, and further wherein said microcontroller determines the rotational acceleration of said support from said signal and from said rotational acceleration determines the linear acceleration of the wheel, and then using said linear acceleration determines the power of the vehicle using the said linear acceleration, the vehicle mass, and the radius of the wheel, and further wherein said image is of a vehicle instrumentation which dynamically displays the determined power of the vehicle.”.

Response to Arguments

7. Applicant's arguments filed March 13, 2008 have been fully considered but they are not persuasive. The Applicant argues that “[Hoch] is deficient in its disclosure to include one or more image maps of an image to be displayed, each image map including an array of plurality of columns. Further since Hock is deficient in this manner, the microprocessor of Hoch does not operate to select an image map and a column from the selected image map in accordance with

Art Unit: 2629

the signal and is not configured to illuminate one or more of the light emitting elements in accordance with the selected image map, the selected column and the signal. It is important to note, the one or more image maps of an image to be displayed, and the plurality of columns of each map is not [the] same as the array of lights as described in Hoch". The Examiner respectfully disagrees. Hoch teaches three supports (101-103) each having a plurality of light emitting elements (See Fig. 1). Hoch also teaches a memory connected to the microprocessor that stores patterns, images and messages (Col. 3, lines 64-67). These patterns, images and messages represent an image map. For example, figure 3D illustrates the display apparatus displaying "HOKEY SPOKES!!!". In order to display this image the memory uses an image map. To further clarify, when forming the "H" in the image "HOKEY SPOKES!!!" the memory utilizes the image map and sends it to the microprocessor in pieces (i.e. it breaks down the image into columns); thereby the "H" is broken down into "|", "—" and "|". To better illustrate, the Examiner will only use one support (101). At time t1 the microprocessor illuminates all of the LED's on 101 to form "|", at times t2-t3, the microprocessor illuminates only the middle LED on 101 to form "—" and at time t4 the microprocessor illuminates all of the LED's on 101 to form "|". Using Persistence of Vision, the viewer will be able to perceive an "H".

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Siegel et al.

USPGPUB 2004/016127

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RODNEY AMADIZ whose telephone number is (571)272-7762. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sumati Lefkowitz/
Supervisory Patent Examiner, Art Unit 2629

/R. A./
Examiner, Art Unit 2629
6/21/08